

RESPONSE UNDER 37 C.F.R. 1.111
U.S. Application 09/305,019

PATENT
Docket No. 10151-1

AMENDMENTS TO THE CLAIMS:

1-3 (Cancelled)

4. (Previously Amended) A process for producing a monoalkylated aromatic compound comprising the steps of:

(a) contacting an alkylatable aromatic compound with an alkylating agent in the presence of an alkylation catalyst in an alkylation reaction to provide a product comprising said monoalkylated aromatic compound and a polyalkylated aromatic compound, and then

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(b) contacting the polyalkylated aromatic compound from step (a) with said alkylatable aromatic compound in the liquid phase and in the presence of a transalkylation catalyst in a transalkylation reactor separate from said alkylation reactor, said transalkylation catalyst comprising TEA-mordenite having an average crystal size of less than 0.5 micron to produce said monoalkylated aromatic compound.

5. (Original) The process of claim 4, wherein the alkylation step (a) is conducted in the liquid phase.

6. (Original) The process of claim 4, wherein the alkylating agent includes an alkylating aliphatic group having 1 to 5 carbon atoms.

7. (Original) The process of claim 4, wherein the alkylating agent is ethylene or propylene and the alkylatable aromatic compound is benzene.

8. (Original) The process of claim 4, wherein the alkylation catalyst of step (a) is selected from MCM-22, MCM-49, MCM-56 and zeolite beta.



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9. (Original) The process of claim 4, wherein step (a) is conducted at a temperature between about 300° and 600°F (about 150° and 316°C), a pressure up to about 3000 psig (20875 kPa), a space velocity between about 0.1 and 20 WHSV, based on the ethylene feed, and a ratio of the benzene to the ethylene between about 1:1 and 30:1 molar.

10. (Currently Amended) The process of claim 4, wherein step (b) is conducted at a temperature of 100 to 260°C, a pressure of 10 to 50 barg, a weight hourly space velocity of 1 to 10 on total feed, and benzene/polyalkylated benzene weight ratio 1:1 to 6:1.

11. (New) The process of claim 4, wherein the TEA-mordenite was produced by crystallization from a synthesis mixture comprising a Si/Al₂ molar ratio of less than 90. ✓

12. (New) The process of claim 4, wherein the TEA-mordenite was produced by crystallization from a synthesis mixture comprising a Si/Al₂ molar ratio of between about 35 and about 50.